POLLUTANTS SOLICITATION

Professional Services Questionnaire

Solicitation # SCC060000

Arizona Department of Environmental Quality
Contracts and Procurement Unit

Definitions:

1. "*Branch Office*" means a satellite, or subsidiary extension, of a headquarters office of a company, regardless of any differences in name or legal structure of such a branch due to local or state laws. Branch offices are normally subject to the management decisions, bookkeeping, and policies of the main office.

2. "*Consultant*" means a highly specialized individual or firm having significant input and responsibility for certain aspects of a project and possessing unusual or unique capabilities for assuring success of the finished work.

3. "*Discipline*," means the primary technological capability of individuals in the responding firm. Possession of an academic degree, professional registration, certification or extensive experience in a particular field of practice normally reflects an individual's primary technical discipline.

4. "*Key Persons, Specialists, and Individual Consultants*," means those individuals who will have major project responsibility or will provide unusual or unique capabilities for the project under consideration.

5. "*Parent Company*" means firm, company, corporation, association or conglomerate which is the major stockholder or highest tier owner of the firm completing this questionnaire; i.e., Firm A is owned by Firm B which is, in turn, a subsidiary of Corporation C. The "parent company" of Firm A is Corporation C.

6. "*Prime*" means that firm which may be coordinating the concerted and complementary inputs of several firms, individuals or related services to produce a completed study or facility. The "prime would normally be regarded as having full responsibility and liability for quality of performance by itself as well as by subcontractor professionals under its jurisdiction.

7. "*Principals*" means those individuals in a firm who possess legal responsibility for its management. They may be owners, partners, corporate officers, associates, administrators, etc.

8. "*Subcontract*" means any Contract, express or implied, between the Contractor and another party or between a subcontractor and another party delegating or assigning, in whole or in part, the making or furnishing of any material or any service required for the performance of the Contract.

9. "*Subcontractor*" means one who is awarded a portion of an existing Contract by a Contractor, esp. a general contractor. For example, a Contractor who performs environmental work typically retains Subcontractors to perform specialty work such as well installations, lab analysis, etc.

Instructions for Filing (Numbers below correspond to numbers contained in form):

1. Show date on which form is prepared. All information submitted shall be current and accurate as of this date.

2. Type accurate and complete name of submitting firm, its address, zip code and primary phone number.

   2.1 Indicate whether form is being submitted in behalf of a parent firm or a branch office.

3. Provide date the firm was established under the name shown in question 2.

4. Enter type of ownership, or legal structure, of firm (sole proprietor, partnership, corporation, etc.)

   Check appropriate boxes indicating if firm is (a) a small business concern; (b) a small business concern owned and operated by socially and economically disadvantaged individuals; or (c) Woman-owned

   Note: *ARS §41-1001(19): "Small business" means a concern, including its affiliates, which is independently owned and operated, which is not dominant in its field and which employs fewer than one hundred full-time employees or which had gross annual receipts of less than four million dollars in its last fiscal year. For purposes of a specific rule, an agency may define small business to include more persons if it finds that such a definition is necessary to adapt the rule to the needs and problems of small businesses and organizations.*

5. Branches of subsidiaries of large or parent companies, or conglomerates, should insert name and address of highest-tier owner.

   5.1 If present firm is the successor to, or outgrowth of, one or more predecessor firms, show name(s) of entity.

   5.2 Year parent Company was established.

6. List not more than two principals from submitting firm who may be contacted by ADEQ. (Different principles may be listed on forms going to another agency.) Listed principals must be empowered to speak for the firm on the policy and contractual matters.

7. Show total number of employees, by discipline, in submitting office. (*If form is being submitted by main headquarters office, firm should list total employees, by discipline, in all offices.) While some personnel may be qualified in several disciplines, each person should be counted only once in accord with his or her primary function. Include clerical personnel as "administrative." Write in any additional disciplines—sociologists, biologists, etc.—and number of people in each, in blank spaces provided.

8. Using chart (on the form) insert appropriate index number to indicate range of professional services fees received by submitting firm each calendar year for the last five years, most recent year first. Fee summaries should be broken down to reflect the fees received each year for (a) work performed directly for the State (not including grant and loan projects) or as a sub to other professionals performing work directly for the State; (b) all other domestic work, U.S. and possessions, including Federally-assisted projects, and (c) all other foreign work.

9. Select and enter, in numerical sequence, not more than six "Experience Profile Code" numbers from the listing below, which most accurately reflect submitting firm's demonstrated technical capabilities and project experience. Carefully review the list. (It is recognized some profile codes may be part of other services or projects contained on the list; firms are encouraged to select profile codes, which best indicate type and scope of services provided on past projects.) For each code number, show total number of projects and gross fees (in thousands) received for profile projects performed by firm during past five years. If firm has one or more capabilities not included on the list, insert name in blank spaces at end of list and show numbers in question 9 on the form. In such cases, the filled-in listing must accompany the complete Professional Services Questionnaire when submitted to the State.

10. Using the "Experience Profile Code" numbers in the same sequence as entered in item 9, give details of at least one recent (within the last five years) representative project for each code number, up to a maximum of five separate projects, or portions of projects, for which firm was responsible. (Project examples may be used more than once to illustrate different services rendered on the same job. Example: a dining hall may be part of an auditorium or educational facility.) Firms, which select less than five "profile codes" may list two or more project examples (to illustrate specialization) for each code number so long as total of all project examples does not exceed five. After each code number in question 10, show: (a) whether firm was "P," the prime professional, or "C," a consultant, or "SC," a Subcontractor on that particular project (new firms, in existence less than five years may use the symbol "IE" to indicate "Individual Experience" as opposed to firm experience); (b) provide name and location of the specific project which typifies firm's (or individual's) performance under that code category; (c) give name and phone number of the owner of that project (if government agency indicate responsible office); (d) show the estimated construction cost

(or other applicable cost) for that portion of the project for which the firm was primarily responsible. (Where no construction was involved, show approximate cost of firm's work); and (e) state year work on that particular project was, or will be, completed.

11. Insert the number of in-house personnel by discipline proposed for subject contract on line (A). While some personnel may be qualified in several disciplines, each person should be counted only once in accord with his or her primary function. Include clerical personnel as "administrative." Write in any additional disciplines—sociologists, biologists, etc. – and number of people in each, in blank spaces provided.

12. List only those projects, which the firm is currently performing under direct contract with an agency or department of the State. Exclude any grant or loan projects being financed by the Federal Government but being performed under contract to other non-Federal Government entities. We prefer that you list recent such projects. Prime consideration will be given to projects, which illustrate respondent's capability for performing work similar to that being sought. Required information must include: (a) name and location of project, (b) brief description of type and extent of services provided for each project (offeror should indicate which individual was the prime on that particular project and what role they played), (c) name of the Government agency (indicate responsible office) and name and phone number of individual to contact for reference (preferably the project manager), (d) percent complete (Indicate in this item the percentage of work completed upon filing this form), (e) total construction cost of completed project (or where no construction was involved, the approximate cost of the work) and that portion of the cost of the project for which the named firm was/is responsible.

13. List up to five projects, which demonstrate the firms competence to perform work similar to that likely to be required under this contract. We prefer that you list recent such projects. Prime consideration will be given to projects, which illustrate respondent's capability for performing work similar to that being sought. Required information must include: (a) name and location of project, (b) brief description of type and extent of services provided for each project (offeror should indicate which individual was the prime on that particular project and what role they played), (c) name of the owner of that project, and name and phone number of individual to contact for reference (preferably the project manager), (d) completion date (actual when available, otherwise estimated), (e) total construction cost of completed project (or where no construction was involved, the approximate cost of the work) and that portion of the cost of the project for which the named firm was/is responsible.

14. Respondent should provide brief resumes for key persons (only Offerors employees) expected to participate on this contract. Care should be taken to limit resumes to only those personnel and specialists who will have major project responsibilities (Professional Level III and above only). Each resume must include: (a) name of each key person and specialist and his or her title, (b) the project assignment or role which that person will be expected to fulfill in connection with this contract, (c) years of relevant experience with present firms and other firms, (d) the highest academic degree achieved and the discipline covered (if more than one highest degree, such as two Ph.D.'s, list both), the year received and the particular technical/professional discipline which that individual will bring to the contract, (e) if registered as an architect, engineer, surveyor, etc. show only the field of registration and the year that such registration was first acquired. If registered in several states, list states, and (f) a synopsis of experience, training, or other qualities, which reflect individual's potential contribution to this contract. Include such data as: familiarity with Government or agency procedures, similar type of work performed in the past, management abilities, familiarity with the geographic area, etc. Please limit synopsis of experience to directly relevant information.

15. Respondent should provide an organizational chart showing the staffing and lines of authority for the key persons to be used under this contract. The relationship of key personnel to management and to support personnel should be clearly illustrated.

16. Pricing shall be provided on an all inclusive basis and shall contain the labor rate, labor benefits, payroll burden, insurance, Workman's Compensation, fees, all taxes, profit, overhead (including repairs and maintenance if applicable), administrative costs (including backup documentation, subcontractor administration and all other related administrative factors) and all other related cost factors.

    The Hourly rates will be evaluated on the aggregate total of the hourly rates submitted. The hourly rates shall show a progression in price from level to level. An hourly rate must be submitted for each staff level identified in the Hourly Rate Pricing Schedule. If an hourly rate is not provided for a staff level the proposal shall be considered non-responsive.

    A baseline median price for aggregate hourly rates has been established for evaluation purposes. This baseline price is set at $920.00. Aggregate hourly rate totals below the prescribed baseline shall be given an evaluation scores higher than 3 up to a score of 6. Any Offeror's aggregate hourly rates above the prescribed baseline shall be given an evaluation score lower than 3.

    Note: All Hourly Rates Shall be Rounded to the nearest dollar ($38.49 = $38.00 or $38.50 = 39.00).

The aggregate hourly rate total will be evaluated based on the chart illustrated below:

$710 – $727.50 $745 – $762.50	**6 POINTS**
$780 – $797.50 $815 – $832.50	**5 points**
$850 – $867.50 $885 – $902.50	**4 Points**
Baseline - $920 $937.50	**3 Points**
$955 – $972.50 $990 – $1,007.50	**2 Points**
$1,025 – $1,042.50 $1,060 – $1,077.50 $1,095 – $1,112.50 $1,130	**0 Points**

17. Equipment rental pricing shall be provided on an all inclusive basis and shall contain all fees, administrative costs (including backup documentation) and all other related cost factors.

18. Through narrative discussion, show reason why the firm believes it is especially qualified to undertake the project. Information provided should include, but not be limited to, such data as: specialized equipment available for this work, any awards or recognition received by a firm or individuals for similar work, required security clearances, special approaches or concepts developed by the firm relevant to this project, etc. Respondents may say anything they wish in support of their qualifications. When appropriate, respondents may supplement this proposal with graphic material and photographs, which best demonstrate design capabilities of the team proposed for this project.

19. Completed forms should be signed by the chief executive officer, or by the principal responsible for the conduct of the work. **All information contained in the form should be current and factual.**

Experience Profile Code Numbers (for use with questions 9 and 10)

001	Acoustics, Noise Abatement	045	High-rise; Air-Rights-Type Buildings	089	Rehabilitation *(Buildings; Structures; Facilities)*
002	Aerial Photogrammetry	046	Highways; Streets; Airfield Paving; Parking Lots	090	Resource Recovery; Recycling
003	Agricultural Development; Grain Storage; Farm Mechanization	047	Historical Preservation	091	Radio Frequency Systems and Shieldings
004	Air Pollution Control	048	Hospital and Medical Facilities	092	Rivers; Canals; Waterways; Flood Control
005	Airports; Navaids; Airport Lighting; Aircraft Fueling	049	Hotels; Models	093	Safety Engineering; Accident Studies; OSHA Studies
006	Airports; Terminals and Hangers; Freight Handling	050	Housing *(Residential; Multi-Family; Apartments; Condominiums)*	094	Security Systems; Intruder and Smoke Detection
007	Arctic Facilities	051	Hydraulics and Pneumatics	095	Seismic Designs and Studies
008	Auditoriums and Theaters	052	Industrial Buildings; Manufacturing Plants	096	Sewage Collection; Treatment; Disposal
009	Automation; Controls; Instrumentation	053	Industrial Processes; Quality Control	097	Soils and Geologic Studies; Foundations
010	Barracks; Dormitories	054	Industrial Waste Treatment	098	Solar Energy Utilization
011	Bridges	055	Interior Design; Space Planning	099	Solid Wastes; Incineration; Landfill
012	Cemeteries *(Planning and Relocation)*	056	Irrigation; Drainage	100	Special Environments; Clean Rooms, etc.
013	Chemical Processing and Storage	057	Judicial and Courtroom Facilities	101	Structural Design; Special Structures
014	Churches; Chapels	058	Laboratories; Medical Research Facilities	102	Surveying; Platting; Mapping; Flood Plain Studies
015	Codes; Standards; Ordinances	059	Landscape Architecture	103	Swimming Pools
016	Cold Storage; Refrigeration; Fast Freeze	060	Libraries; Museums; Galleries	104	Storm Water Handling and Facilities
017	Commercial Building *(low rise)*; Shopping Centers	061	Lighting *(Interiors; Display; Theatre, etc.)*	105	Telephone Systems *(Rural; Mobile; Intercom, etc.)*
018	Communications Systems; TV; Microwave	062	Lighting *(Exteriors; Streets; Memorials; Athletic Fields, etc.)*	106	Testing and Inspection Services
019	Computer Facilities; Computer Service	063	Materials Handling Systems; Conveyors; Sorters	107	Traffic and Transportation Engineering
020	Conservation and Resource Management	064	Metallurgy	108	Towers *(Self-Supporting and Guyed Systems)*
021	Construction Management	065	Microclimatology; Tropical Engineering	109	Tunnels and Subways
022	Corrosion Control; Cathodic Protection; Electrolysis	066	Military Design Standards	110	Urban Renewals; Community Development
023	Cost Estimating	067	Mining and Mineralogy	111	Utilities *(Gas and Steam)*
024	Dams *(Concrete; Arch)*	068	Missile Facilities *(Silos; Fuels; Transport)*	112	Value Analysis; Life-Cycle Costing
025	Dams *(Earth; Rock);* Dikes; Levees	069	Modular Systems Design; Pre-Fabricated Structures or Components	113	Warehouses and Depots
026	Desalinization *(Process and Facilities)*	070	Naval Architecture; Off-Shore Platforms	114	Water Resources; Hydrology; Groundwater
027	Dining Halls; Clubs; Restaurants	071	Nuclear Facilities; Nuclear Shielding	115	Water Supply; Treatment and Distribution
028	Ecological and Archeological Investigations	072	Office Buildings; Industrial Parks	116	Wind Tunnels; Research/Testing Facilities Design
029	Educational Facilities; Classrooms	073	Oceanographic Engineering	117	Zoning; Land Use Studies
030	Electronics	074	Ordnance; Munitions; Special Weapons		
031	Elevators; Escalators; People-Movers	075	Petroleum Exploration	200	Environmental Remediation/Construction_____ _____
032	Energy Conservation; New Energy Sources	076	Petroleum and Fuel *(Storage and Distribution)*	201	_____
033	Environmental Impact Studies, Assessments, or Statements	077	Pipelines *(Cross-Country – Liquid and Gas)*	202	_____
034	Fallout Shelters; Blast-Resistant Design	078	Planning *(Community, Regional, Areawide and State)*	203	_____
035	Field Houses; Gyms; Stadiums	079	Planning *(Site, Installation, and Project)*	204	_____
036	Fire Protection	080	Plumbing and Piping Design	205	_____
037	Fisheries; Fish Ladders	081	Pneumatic Structures; Air-Support Buildings	206	_____
038	Forestry and Forest Products	082	Postal Facilities	207	_____
039	Garages; Vehicle Maintenance Facilities; Parking Decks	083	Power Generation; Transmission; Distribution	208	_____
040	Gas Systems (Propane; Natural, etc.)	084	Prison and Correctional Facilities	209	_____
041	Graphic Design	085	Product; Machine and Equipment Design	210	_____
042	Harbors; Jetties; Piers; Ship Terminal Facilities	086	Radar; Sonar; Radio and Radar Telescope	211	_____
043	Heating; Ventilating; Air Conditioning	087	Railroad; Rapid Transit	212	_____
044	Health Systems Planning	088	Recreation Facilities *(Parks; Marinas, etc.)*	213	_____

1. Date Prepared: August 23, 2005

2. Firm Name	Business Address and Primary Phone Number
Terranext, LLC	9830 S. 51st St., Ste. A-127 Phoenix, AZ 85044 480-496-4100

2.1 Submittal is for

x	Parent Company		Branch or Subsidiary Office

3. Year Present Firm was Established	4. Specify type of ownership and check below, if applicable.		
	a. Small Business	b. Small Disadvantaged Business	c. Women – Owned Business
1986	x		x

5. Name of Parent Company, if any:	5.1 Former Parent Company Name(s), if any:	5.2 Year Parent Company was Established:
	BE&K, Inc.	

6. Names of not more then two Principals to contact:

	Name	Title	Telephone Number	Fax Number
1.	Kim Martin	President	(303) 914-1700	(303) 914-1709
		E-Mail Address:	Kmartin@terranext.net	
2.	Daniel Dowler	Director	(480) 496-4100	(480) 496-4399
		E-Mail Address:	Ddowler@terranext.net	

7. Personnel by Discipline: (List each person only once, by primary function)

4	Administrative		Electrical Engineers		Oceanographers	1	Archaeologist
	Architects		Estimators		Planners: Urban/Regional	2	Biologist
3	Chemical Engineers	12	Geologists		Sanitary Engineers	1	Chemist
3	Civil Engineers		Hydrologists		Soils Engineers	5	Environmental Engineer
2	Construction Inspectors		Interior Designers		Specifications Writers	5	Environmental Scientist
2	Draftsmen		Landscape Architects		Structural Engineers	1	Industrial Hygienist
1	Ecologists	1	Mechanical Engineers		Surveyors	3	Project Manager
	Economists		Mining Engineers		Transportation Engineers	**46**	**Total Personnel**

8. Summary of Professional Services Fees Received: (Insert Index Number)

Last five years (most recent year first)

	2004	2003	2002	2001	2000
Direct State contract work	5	6	5	5	5
All other domestic work	1	1	1	1	1
All other foreign work	1	1	1	1	1

Ranges of Professional Services Fees "Index"

1. Less then $100,000
2. $100,000 to $250,000
3. $250,000 to $500,000
4. $500,000 to $1 Million
5. $1 Million to $2 Million
6. $2 Million to $5 Million
7. $5 Million to $10 Million
8. $10 Million or greater

9. Profile of Firm's Relevant Project Experience

	Profile Code	Number of Projects	Total Gross Fees		Profile Code	Number of Projects	Total Gross Fees
1.	200	40	$4,500,000	4.	099	15	$300,000
2.	033	40+	$90,000	5.	114	20+	$2,000,000
3.	97	20	$600,000	6.	115	9	$1,400,000

10. Project Examples, Last Five Years

	Profile Code	"P," "C," "SC," or "IE"	Project Name and Location	Owner Name	Owner Phone Number	Cost of Work	Completion Date (Actual or Estimated)
1.	114	P	West Van Buren RI, Phoenix	ADEQ (W. Pudney)	(602) 771-2300	$2,200,000	6/30/06
2.	114	P	Cooper Rd/Commerce Ave WQARF Site, Gilbert	ADEQ (D. Goodwin)	(602) 771-2300	$200,000	12/30/04
3.	200	P	East Washington Fluff ERA/RI, Phoenix	ADEQ (S. Roberts)	(602) 771-2300	$3,500,000	6/30/06
4.	033	P	Grand & Glendale Aves Phase I & II ESAs, Glendale	ADOT (E. Green)	(602) 712-7768	$30,000	1/30/05
5.	200	P	Beaver Hollow Mini-Mart, Rimrock, AZ	ADEQ (S. Li)	(602) 771-2300	$500,000	6/30/06

11. Personnel by discipline: (List each person only once, by primary function.) Enter proposed personnel at the Task Assignment level on line (A).

A			A			A			A			
1	1	Administrative	9		Electrical Engineers	17		Oceanographers	25		
2		Architects	10		Estimators	18		Planners: Urban/Regional	26	1	Chemist
3	1	Chemical Engineers	11	4	Geologists	19		Sanitary Engineers	27	1	Biologist
4		Civil Engineers	12		Hydrologists	20		Soils Engineers	28		
5		Construction Inspectors	13		Interior Designers	21		Specifications Writers	29		
6	1	Draftsmen	14		Landscape Architects	22		Structural Engineers	30		
7		Ecologists	15	1	Mechanical Engineers	23		Surveyors	31		
8		Economists	16		Mining Engineers	24		Transportation Engineers	32	**10**	**Total Personnel**

12. All work by firm currently being performed directly for State Agencies. (list not more then 5 projects)

	a. Project Name and Location	b. Nature of Firm's Responsibility	c. Agency (Responsible Office) Project Managers Name & Phone Number	d. Completion Date (Actual or Estimated)	e. Estimated Cost (In Thousands)	
					Entire Project	Work for Which Firm was/is Responsible
1.	West Van Buren Area WQARF Registry Site Remedial Investigation, Phoenix	Prepare project plans, monitor well install, groundwater monitoring and reporting	W. Pudney ADEQ 602-771-2300	6/30/06	$2,200,000	$2,200,000
2.	East Washington Fluff WQARF Registry Site ERA/RI, Phoenix	Prepare project plans, hazwaste disposal, cap construction, soil sampling and mobile lab	S. Roberts ADEQ 602-771-2300	6/30/06	$3,500,000	$3,500,000
3.	Beaver Hollow Mini-Mart LUST Remediation, Rimrock, AZ	Site characterization, SVE/air sparge remedial design, construction, operation/monitoring	S. Li ADEQ 602-771-2300	6/30/06	$500,000	$500,000
4.	McGuireville Mini-Mart LUST Remediation, Rimrock, AZ	Wellhead surveying, water level monitoring, potable and monitor well sampling	S. Li ADEQ 602-771-2300	6/30/06	$200,000	$200,000
5.	Department of Economic Security LUST Remediation, Coolidge, AZ	Wellhead surveying, water level monitoring, production and monitor well sampling	Paul Carras AZ Dept. of Administration 602-542-2863	6/30/06	$500,000	$500,000

13. Work by firm, which best illustrates current qualifications relevant to this contract. (list not more then 5 projects)

	a. Project Name and Location	b. Nature of Firm's Responsibility	c. Project Owner's Name and Project Managers Name & Phone Number	d. Percent Complete	e. Estimated Cost (In Thousands)	
					Entire Project	Work for Which Firm was/is Responsible
1.	West Van Buren Area WQARF Registry Site Remedial Investigation, Phoenix	Prepare project plans, monitor well install, groundwater monitoring and reporting , prepare isochemical and water table contour maps, prepare RI report	W. Pudney ADEQ 602-771-2300	80	$2,200,000	$2,200,000
2.	East Washington Fluff WQARF Registry Site ERA/RI, Phoenix	Prepare project plans, hazwaste disposal, cap construction, soil sampling and mobile lab analysis, risk assessment, geophysical surveys, prepare RI & FS reports	S. Roberts ADEQ 602-771-2300	95	$3,500,000	$3,500,000
3.	ADOT Facility Oil/Water Separator Removal, Tucson, AZ	Removal of abandoned oil/water separator including soil sampling beneath removed system; this was followed by a subsurface soil sampling program.	P. Terry ADOT 520-838-2850	100	$14,000	$14,000
4.	Department of Economic Security LUST Remediation, Coolidge, AZ	Wellhead surveying, water level monitoring, production and monitor well sampling, site characterization, prepare corrective action plan, SVE/air sparge remedial design/construction	Paul Carras AZ Dept. of Administration 602-542-2863	40	$500,000	$500,000
5.	Grand & Glendale Aves Phase I & II ESAs, Glendale, AZ	Phase I ESA's of four parcels, Phase II ESA's consisting of soil gas surveys, soil sampling/ analysis, remedial cost estimating, and UST removals	Ed Green AZ Dept. of Transportation 602-712-7768	100	$30,000	$30,000

Name of Individual Daniel A. Dowler, PE	Title Project Director/Manager
Personnel Classification/Level (*Reference ASRAC Statement of Work Table 1*) Professional Level VI	Area of Expertise Project Management, Engineering
Proposed Project Role (*e.g. Project Manager, Project Engineer, Project Hydrologist, ect.*) Project Director/Manager	Education B.S. Chemical Engineering 1980

Years of Experience	Years of Related Experience	Registrations and Certifications Held and Year Received
23	12	Professional Engineer, AZ 1992

Employment History

	Firms Name	Start Date	End Date
1.	Terranext, LLC	09/93	Present
2.	ICF Kaiser Engineers	01/88	07/93
3.	BHP Petroleum Americas, Inc.	05/86	11/86
4.	Monsanto Oil Company	02/81	05/86
5.	Monsanto Chemical Company	06/80	02/81
6.			
7.			
8.			
9.			
10.			

Executive Summary of Career Highlights

As a project engineer/manager, Mr. Dowler is responsible for various aspects of project completion relative to soil, ground water, and air regulatory compliance, including the preparation of remedial planning/design/reporting documents and the operation and maintenance of remedial systems.

Representative Projects:

ADEQ Oversight of Early Response Action, West Van Buren WQARF Site, Project Engineer. Mr. Dowler provided oversight of design, construction, and start-up activities at this PCE soil and groundwater contaminated site, on behalf of ADEQ, involving SVE, air sparge, and groundwater pump and treat systems. Mr. Dowler also certified the construction of the systems for ADEQ.

Remedial Pilot Study, Wellton, Arizona, Rail Yard UST Site, Project Engineer/Manager. Mr. Dowler planned and conducted field pilot tests of pulsed air sparging with sparged air recovery by soil vapor extraction at this gasoline UST site. The test results were used in the design of site-wide systems involving this ground-water remediation technology.

Brief Resume Continued

Remedial Pilot Studies, Rimrock, Arizona, ADEQ UST Site (Beaver Hollow and McGuireville Mini-Marts), Project Engineer. Mr. Dowler planned and conducted field pilot tests of pulsed air sparging/injection and soil vapor extraction at these gasoline UST sites. The test results were used in the design of site-wide remedial systems.

Remedial Pilot Study, Chandler, Arizona, ADEQ UST Site (Village Center), Project Engineer/Manager. Mr. Dowler planned and conducted field pilot tests of air sparging, in-well air stripping, and soil vapor extraction at this gasoline UST site. The test results favored the application of in-well air stripping, rather than air sparging, for removal of dissolved gasoline from groundwater.

Remedial Performance Investigation, Perryville, Arizona, ADOC UST Site, Project Engineer. Mr. Dowler conducted a subsurface investigation of an ongoing soil remediation effort by soil vapor extraction to improve soil gas sweep efficiency and VOC recovery rates at this gasoline UST site. He then operated and maintained the system under these improved conditions until achieving soil remedial goals.

Remedial Pilot Study, Wenden, Arizona, ADEQ UST Site (Wenden Shell), Project Engineer/Manager. Mr. Dowler planned and conducted a 60-day field pilot test of pulsed air sparging and soil vapor extraction technologies at this gasoline UST site. The favorable test results led to the expanded design and implementation of these remedial processes.

Remedial Design, Construction, and Operation; Rimrock, Arizona, ADEQ UST Sites (Beaver Hollow and McGuireville Mini-Marts), Project Engineer. Mr. Dowler prepared remedial designs for both sites, featuring pulsed air sparging/injection and soil vapor extraction processes. He also managed the construction of the remedial systems, conducted initial performance tests of remediation wells, and began initial operation, monitoring, and maintenance of the systems.

Remedial Planning and Design, Phoenix, Arizona, ADEQ UST Site (Gas N Lube Facility), Project Engineer/ Manager. Mr. Dowler managed and prepared the remedial design and corrective action plan for this gasoline UST site, featuring pulsed air sparging with sparged air recovery by soil vapor extraction as the selected ground-water and soil remedy.

Remedial Design, Construction, and Operation; Chandler, Arizona, ADEQ UST Site (Village Center Properties), Project Engineer/Manager. Mr. Dowler utilized existing remedial pilot test wells in the development of an in-well air stripping and soil vapor extraction process design for this gasoline UST site. He also developed a model of the air stripping process using a nodal approach, resulting in a predicted radius of groundwater vertical circulation of 100 feet from the in-well air stripping well. He also installed, performance tested, and operated the remedial systems. After quickly remediating the affected groundwater, the air injection system was utilized to inject ambient air into the vadose zone, in combination with soil vapor extraction, to accelerate the removal of gasoline from affected soil. The site was deemed adequately remediated by ADEQ after nine months of remedial operations.

Name of Individual Arthur Gordon, RG		Title Project Manager
Personnel Classification/Level (*Reference ASRAC Statement of Work Table 1*) Professional Level V		Area of Expertise Project Management, Hydrogeology
Proposed Project Role (*e.g. Project Manager, Project Engineer, Project Hydrologist, ect.*) Project Manager, Senior Geologist		Education M.S. Geology 1977
Years of Experience 25	Years of Related Experience 25	Registrations and Certifications Held and Year Received Registered Geologist, AZ 1982

Employment History

	Firms Name	Start Date	End Date
1.	Terranext, LLC	Feb 1999	Present
2.	Self Employed Environmental Consultant	1996	1998
3.	Earth Tech	1995	1996
4.	Malcolm Pirnie	1992	1994
5.	SCS Engineers	1988	1991
6.	Woodward Clyde Consultants	1986	1988
7.	AZ Dept. of Health Services (Env. Health Div.)	1981	1985
8.	Fenix & Scisson (Nevada Test Site)	1978	1980
9.			
10.			

Executive Summary of Career Highlights

Mr. Gordon has 20 years of hydrogeological and environmental experience. He has managed a wide variety of projects, including remedial investigations/feasibility studies, underground storage tank release investigation and remediation projects, environmental assessments of mining, agricultural, commercial, naval, and industrial properties, landfill and RCRA closure, and aquifer protection permitting. Project management responsibilities have included planning, scheduling, budgeting, personnel supervision, and report writing and editing

Representative Projects:

Remedial Investigation, West Van Buren WQARF Area, Arizona, Project Manager. Prepared the Field Sampling and Analysis, and Quality Assurance Project Plans for the project. Planned and implemented the installation of numerous monitor wells utilizing both mud rotary and percussion hammer drilling methods, including coordinating topographic surveys of each well location, obtaining right-of-way permits from the City of Phoenix, preparing drilling specifications for the two different drilling methods, and coordinating the simultaneous drilling by two different drilling firms, traffic control plans and barricade placement, investigative-derived waste containment, geophysical logging, well development, groundwater sampling, and preparation of comprehensive reports. Also responsible for semiannual sampling of 77 monitor wells over 24 square miles.

Brief Resume Continued

Early Response Action/Remedial Investigation, East Washington Fluff WQARF Registry Site, Phoenix, Arizona, Project Manager. Managing a $3.5 million ERA/RI of this high visibility site near downtown Phoenix, ERA tasks include plan preparation (work, field sampling, grading and drainage, and health and safety), risk assessment, boundary and topographic survey, community relations support, permitting, soil and fluff sampling, fluff excavation and disposal as a hazardous waste, solid waste removal and disposal, underground storage tank removal, design and construction of a temporary cap, and preparation of an ERA report. RI tasks included plan preparation, surface geophysical survey, Geoprobe investigation, land use evaluation, and RI report preparation. Mr. Gordon has been responsible for all aspects of this project, including client liaison, planning, scheduling, budgeting, and subcontractor selection and contracting.

Site Characterization and Corrective Action Plan Preparation, Coolidge, Arizona, Project Manager. The characterization of this LUST site included subsurface soil sampling and analysis using a mobile laboratory, and monitor well installation and sampling. The presence of free product in one of the monitor wells necessitated the implementation of free product removal utilizing a passive free product recovery device. Based upon the findings of the site characterization report, a corrective action plan was prepared.

Remedial Design and Construction, PGA Superfund Site (North), Goodyear, Arizona, Senior Hydrogeologist. Responsible for hydrogeologic aspects of remedial design and construction at TCE-contaminated ground water site. Responsibilities included quarterly groundwater monitoring, the installation of monitor wells, design and installation of injection and extraction wells for groundwater treatment, and technical negotiations with EPA.

Remedial Investigation/Feasibility Study, Tucson, Arizona, Project Manager. Developed the remedial investigation/feasibility study/remedial action plan for waste aluminum dross deposits near Davis-Monthan Air Force Base, Arizona. Specific tasks performed included an environmental assessment, surface and subsurface soil sampling, laboratory analysis, development of a three-dimensional computer model identifying the extent of contamination, risk assessment, and feasibility study. Based on the findings of the feasibility study, a remedial action plan was prepared.

Abandoned Oil/Water Separator Removal, Tucson, Arizona. Field geologist directing removal of abandoned oil/water separator, sampling exposed soils, drill rig supervision/subsurface soil sampling, and report writing.

Resource Conservation And Recovery Act (RCRA) Closure, White Tanks Facility, Maricopa County, Arizona, Senior Hydrogeologist. Preparation and implementation of RCRA closure plan for hazardous waste treatment facility in Maricopa County. Key features of this project included delineating extent of hazardous waste contamination, negotiations with ADEQ, remediation contractor selection and oversight, and closure report preparation.

Name of Individual	Title
Byron Schneid, PG	Senior Geologist
Personnel Classification/Level Professional Level V	Area of Expertise Geology, Hydrogeologic Investigation
Proposed Project Role *(e.g. Project Manager, Project Engineer, Project Hydrologist, ect.)* Project Geologist	Education M.S. Geology, 1992

Years of Experience	Years of Related Experience	Registrations and Certifications Held and Year Received
12	12	Registered Geologist, AZ 1996

EMPLOYMENT HISTORY

	Firms Name	Start Date	End Date
1.	Terranext, LLC	2004	
2.	Blaes Environmental Management	2004	2004
3.	Kleinfelder	2001	2003
4.	Self	2001	2001
5.	ADEQ, UST Section	2000	2001
6.	Terrane Engineering	1999	1999
7.	Asset Environmental Services	1996	1999
8.	Environmental Technology	1996	1996
9.	Kleinfelder	1992	1996
10.			

Executive Summary of Career Highlights

Mr. Byron Schneid has nine years of experience managing environmental projects for clients such as Mobil; Exxon; Unocal; Atchison Topeka and Santa Fe Railway Co.; Salt River Pima-Maricopa Indian Community; USF-Bestway Transportation, United Metro Materials; and Cardon since 1994. Mr. Schneid has cultivated excellent working relationships with numerous local and regional vendors, subcontractors and clients. His responsibilities have included writing proposals, contracts, and subcontracts; budget setup, tracking, and invoicing; client and regulatory interface producing a wide spectrum of regulatory reports, workplans, and ESAs; generating well logs; preparation of compliance, drilling and other permits, and graphics. He is experienced in subsurface contour mapping, hydrologic analyses and flow modeling. Mr. Schneid has assisted in training, supervision, and mentoring of several scientists, engineers, technicians and drafters. As a field geologist he has performed geologic and geotechnical surveys; soil, groundwater, and vapor sampling; water level monitoring; UST system excavations; and operation and maintenance of soil and groundwater remediation equipment.

Representative Experience:

West Van Buren Area, Phoenix, Arizona. Performs quarterly water level monitoring, monitor well sampling for total/ dissolved chromium and VOCs, prepares water table contour maps using SURFER contouring software, assists in report preparation.

Unocal Corporation, Arizona. As a Field Geologist, assisted at drilling and sampling operations in many locations throughout Arizona and assisted in environmental site assessment activities. Logged soil boring and well installations. Also supervised soil disposal operations, collected samples, and provided onsite health and safety guidance at numerous sites. As a Staff Geologist, produced boring logs, graphics, and closure and site characterization reports and assisted with permitting prior to drilling and soil disposal. Wrote numerous contracts and coordinated subcontractor activities.

Brief Resume Continued

State Tractor and Equipment Company, Phoenix, Arizona. Supervised drilling and collected soil samples during soil borings and well installation activities. Wrote contracts, coordinated activities of subcontractors related to field activities, provided client and landowner contact. Wrote drilling permits and subsurface investigations, well installation, and quarterly groundwater monitoring reports.

United Metro Materials, Arizona. Collected soil and sludge samples from excavations and soil borings during subsurface investigation of three Class V Injection wells and associated leach pits located at Coolidge, Glendale, and Phoenix materials plants. Wrote proposals, reports, aquifer protection permits (APPs), a site closure report and provided client contact. Wrote drilling permits and contracts and coordinated subcontractor activities.

Confidential Client, Western Arizona. Conducted environmental investigation and provided oversight during removal of compromised overspill pit for bulk fuel facility. Conducted sampling of waste treatment facility and installed point-of-compliance well for existing/historic facilities.

Salt River Pima-Maricopa Indian Community. Prepared and reviewed proposals, reports and ESAs. Provided third-party review of regulatory reports for a wide variety of tribal and leased sites with environmental concerns. Sites concerns included hazardous material spills, illegal dumping, USTs, potential airborne contaminants, non-compliant maintenance procedures, etc. Performed environmental audits and field investigations. Assisted in training of community staff for environmental sampling and processes.

Bean and Company, Buckeye, Arizona. Assisted in the oversight of cleanup operations at a pesticide production facility that was under EPA review. Generated graphics for site report using SURFER contouring software and other packages.

Petroleum Contractors, Inc., Phoenix, Arizona. Performed project management at Sky Harbor Airport jet fuel pipeline release located below taxiway. Duties included proposal and change order preparation, project setup, budget monitoring, regulatory interface, coordination and execution of field activities, waste disposal profiling, and client contact. The project was completed under budget and within 60% of the contracted time schedule.

Atchison, Topeka, and Santa Fe Railway Co., Prescott, Arizona. Provided project management, including responsibilities for proposal writing, client contact, budget monitoring, and coordination of field activities for former rail depot. Supervised drilling and collected soil samples during monitoring well installation at the site with perched water conditions in mountainous terrain. Wrote contracts for and coordinated subcontractor activities. Wrote drilling permits, and well installation and groundwater monitoring reports related to the above.

Arizona Portland Cement, Marana, Arizona. Conducted surface/subsurface soil contamination investigations for a petroleum AST system failure, historic use of petroleum emulsions for roadway dust control, and potential metals impact at large multi-use facility. Supervised drilling operations, logged borings and assisted in report production.

14. Brief resume of key persons, specialists and individual consultants/associates anticipated for this contract:

Name of Individual	Title
Philip Wright, PE	Project Engineer
Personnel Classification/Level (*Reference ASRAC Statement of Work Table 1*) Professional Level IV	Area of Expertise Remedial Design/Construction/Operation
Proposed Project Role (*e.g. Project Manager, Project Engineer, Project Hydrologist, ect.*) Project Engineer	Education B.S. Mechanical Engineering, 1990

Years of Experience	Years of Related Experience	Registrations and Certifications Held and Year Received
14	14	Professional Engineer, Kansas

Employment History

	Firms Name	Start Date	End Date
1.	International Paper Company	July 1990	March 1998
2.	Engineering, Design and Testing Corporation	March 1998	January2002
3.	Terranext, LLC	January 2003	Present
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Executive Summary of Career Highlights

Mr. Wright has over 12 years professional experience as a consulting engineer, project engineer and capital project manager. With a manufacturing background rooted in the pulp and paper industry, he has been involved in various aspects associated with the design, installation, operation and maintenance of a variety of process equipment and systems including those associated with air emissions pollution control, landfills, water treatment, wastewater treatment and spill containment. In addition, Mr. Wright has been responsible for conducting detailed technical investigations of numerous industrial and commercial incidents requiring an engineering evaluation to determine the root cause of loss. As project engineer, Mr. Wright currently evaluates the feasibility of implementing various types of electromechanical remedial systems for chlorinated solvents, petroleum hydrocarbon and nitrates impacted soil and ground water sites.

Mr. Wright's project engineering/project management responsibilities include: develop site specific proposals, work plans and scope of work; develop investigation and remediation strategies; develop remedial design plans and prepare remedial design equipment specifications; maintain budgetary tracking and fiscal control over financial aspects of approved projects; provide construction oversight and technical support during the fabrication, construction and installation of remedial systems; supervise field installation activities of remedial systems and associated equipment, conduct start-up and commissioning activities of completed, installed remedial systems; supervise the operation and maintenance of installed soil and ground water remedial systems; and conduct routing audits of operating soil and ground water remedial systems to ensure satisfactory performance and optimize uptime.

Mr. Wright's additional professional experiences include: provided expert witness testimony and litigation support; preparation of work plans and corrective action plans; conducted peer review of engineering reports/designs; managed all aspects of capital project installations; and designed various industrial process systems.

Professional Experience:

Mr. Wright manages the operation and maintenance of existing remedial systems utilizing such technology as soil vapor extraction, air sparge, liquid phase recovery and air stripper pump treat. In addition, Mr. Wright provides engineering support and technical expertise to professional staff and clientele.

Project Manager responsible for the operation and maintenance of 17 remediation sites statewide. Remedial systems include pump and treat, soil vapor extraction, air sparge and granular activated carbon technologies. Manages maintenance scheduling and budgetary requirements. Reviews operating and maintenance data to ensure system effectiveness and equipment uptime. Conducts engineering reviews of remedial systems to address maintenance concerns and enhance system performance. Maintains client contact regarding status of site activities.

Project Engineer responsible for design of systems and specification of equipment for numerous sites statewide associated with the remediation of hydrocarbon impacted soils and groundwater. Assists professional staff with determination of appropriate remedial technologies for site specific conditions. Prepares engineering design plans to identify technical system parameters and develop equipment specifications. Contacts equipment manufacturers regarding equipment selection and develops construction plans/schedules with construction contractors. Maintains client contact regarding status of site activities.

Project engineer responsible for coordinating field installation activities and providing field engineering support. Supervises field installation activities and acts as technical liaison with remotely located design engineer. Maintains client contact regarding status of site activities.

Specialized consulting in the areas of manufacturing and industrial incident, failure of mechanical components, and light and heavy vehicle accident reconstruction. Consultations routinely involved analytical investigations, manufacturing process analysis, failure analysis, vehicle acceleration and deceleration analysis, collision speed analysis, occupant motion analysis, and vehicle fire investigation.

Developed and implemented capital improvement projects as Project Manager and Project Engineer and provided technical support to maintenance and operations personnel. Experienced with continuous web process operations; stoker fired, gas, fired, and black liquor recovery boiler operation, inspection, upgrade, and repair, ASME pressure vessel inspection and repair; API 650 tank installation and API 653 tank inspection and repair; heavy rotation equipment installation, maintenance, and failure investigation; condensing and non-condensing turbine generator operation, inspection, and repair; distributive control system installation and DCS process conversion; electrostatic precipitator installation and control upgrades; coating make down, processing and application system design and installation; pump and piping system design and installation; displacement washing equipment installation and repair.

14. Brief resume of key persons, specialists and individual consultants/associates anticipated for this contract:

Name of Individual	Title
Adam Adams	Project Scientist
Personnel Classification/Level (*Reference ASRAC Statement of Work Table 1*)	Area of Expertise
Professional Level IV	Chemistry, Emergency Response, Field Supervision
Proposed Project Role (*e.g. Project Manager, Project Engineer, Project Hydrologist, ect.*)	Education
Project Scientist	B.S., Chemistry, 1992

Years of Experience	Years of Related Experience	Registrations and Certifications Held and Year Received
12	12	Corrective Action Project Manager, Texas

Employment History

	Firms Name	Start Date	End Date
1.	Terranext, LLC	1993	Present
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Executive Summary of Career Highlights

Mr. Adam's experience includes site investigation and remediation of leaking underground storage tank sites associated with emergency response actions, Phase I Environmental Site Assessments, data validation and evaluation of laboratory data packages/reports, data management, database compilation, statistical analysis of data, litigation support, and project reporting.

Professional Experience:

Mr. Adams currently is the project manager on Terranext's Emergency Response and Supplemental Site Activities Contract (ERSSA) with the Texas Commission on Environmental Quality (TCEQ). Mr. Adams is certified with the state of Texas as a Corrective Action Project Manager (CAPM#01572) and is registered to perform corrective action services within the state of Texas.

As a project manager, Mr. Adams manages all ERSSA contract activities, including scheduling events, equipment and supply purchasing, implementation, reporting, and invoicing. The ERSSA contract involves emergency response with respect to Texas LPST sites. Site activities conducted under the ERSSA contract include LPST removal; soil vapor surveys (using direct push technology); installation of groundwater monitoring wells, vapor extraction wells, interceptor trenches, and contaminant recovery and treatment systems; routine monitoring of public and private drinking water systems; repair and replacement of hydrocarbon impacted sanitary sewer/storm water/drinking water lines; and general data collection, compilation, interpretation, and presentation. Additional duties performed under the ERSSA contract include oversight of building demolition, waste management, and site assessment. Sites include impacted creeks, sanitary sewers, drinking water lines, underground utilities, commercial facilities, and

private homes. Impacts include vapor-phase, dissolved phase, and free-phase (phase separated) product.

As an environmental scientist in the Terranext Little Rock, Arkansas office for Toxicology and Health Related Sciences, Mr. Adams was a member of the Emergency Response Team, conducted sampling on all media types, and provided extensive support for litigation projects to include Validation and QA/QC evaluation of laboratory data packages; establishment of BE&K/Terranext's Required Levels of Data Packages for Validation relative to the EPA's levels of QA/QC and Validation; technical assistance and support to senior level toxicologists in the areas of litigation, environmental risk assessment, analytical documentation, regulations, statistical evaluations and chemical analyses; and assistance to the staff Certified Industrial Hygienist as needed for on-site ambient air monitoring, evaluation of analytical results, and all other field sampling. Mr. Adams assumed the position, responsibilities, and duties of the Health and Safety Officer, as well as performing all duties of the computer administrator.

Mr. Adams has served as a member of the Arkansas Army National Guard for 15 years as a forward unit Air Traffic Control (ATC) Specialist (93C30). As a Staff Sergeant (E-6), Mr. Adams has is a rated controller in all four company facilities (RADAR, Tower, Aviation Information Center, and Tactical Towers), and served on two tours. Mr. Adams was the ATC Operations Platoon Sergeant during a six month tour of duty with the United Nations in Haiti and conducted all operations in the Port-au-Prince International Airport, as well as leading several tactical ATC operations. Mr. Adams served for 16 months on a tour of duty in Bosnia as the RADAR Chief for five months and the Tower Chief for six months. Upon his return from Bosnia, he assumed the position of ATC Chief responsible for all ATC Operations in the Company.

14. Brief resume of key persons, specialists and individual consultants/associates anticipated for this contract:

Name of Individual	Title
Christopher Kinn	Project Geophysicist
Personnel Classification/Level (*Reference ASRAC Statement of Work Table 1*)	Area of Expertise
Professional Level IV	Geophysics, Surface and Subsurface Assessment
Proposed Project Role (*e.g. Project Manager, Project Engineer, Project Hydrologist, ect.*)	Education
Project Geophysicist	B.S., Geology (Geophysics Emphasis), 1990

Years of Experience	Years of Related Experience	Registrations and Certifications Held and Year Received
13	13	

Employment History

	Firms Name	Start Date	End Date
1.	Terranext, LLC	2004	Present
2.	CKinn Geosciences	1998	2004
3.	Layne Geosciences	1994	1998
4.	Private Contracting	1992	1994
5.	Phoenix Geosciences	1990	1992
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Executive Summary of Career Highlights

Mr. Kinn has over 13 years professional experience in geophysics and hydrogeology. Geophysical methods he has utilized in exploration include Time Domain Electromagnetic (TEM), Frequency Domain Electromagnetic (EM), Magnetotelluric (MT), Gravity, Magnetic, Direct Current (DC) Resistivity, Geothermal, Ground Penetrating Radar (GPR), and Seismic Refraction. He has performed both surface and borehole geophysical surveys exploring fractured rock and glacial deposit environments for high capacity water supply wells. He has conducted shallow geophysical surveys in underground storage tank (UST), contaminant plume and archaeology applications. Mr. Kinn has conducted numerous aquifer characterization projects that included aquifer testing, well design, and wellhead protection components.

Mr. Kinn's Senior Geophysicist/Project Manager responsibilities include: development of site specific proposals, work plans and scopes of work; maintain budgetary tracking and fiscal control of approved projects; manage and oversight of field activities of approved projects; project development in water supply exploration and geophysical applications.

Project Manager for state-led corrective action program contract including the assessment, delineation, and monitoring of perchloroethylene (PCE) and associated drycleaning contamination; remediation of PCE and associated drycleaning contamination; and operation and maintenance of drycleaning remediation systems at sites throughout Kansas.

Project Manager for this state-led assessment services contract including Phase I and Phase II Targeted Brownfields Assessments (TBAs); risk based corrective (RBCA) investigations; and inventory studies for the Missouri Department of Natural Resources at sites throughout Missouri.

Project Manager for this state-led environmental services contract including the assessment, delineation, and monitoring of petroleum based contaminated sites throughout Wyoming.

Project Manager for state-led environmental services contract including the monitoring of petroleum contaminated sites throughout Colorado; closure and post-closure monitoring of landfill sites.

1998-2004 CKinn Geoscience, Kansas City, Missouri

Mr. Kinn's consulting firm provided geophysical and hydrogeological services to industry, private contractors, archeologists, city utilities and rural water districts. Some representative projects include: fracture mapping and glacial channel mapping for high capacity water supply locations; non-intrusive mapping of abandoned mine sites and potential karst features; non-intrusive mapping of underground storage tank (UST) locations; non-intrusive mapping of historic grave sites geologic logging and aquifer testing of water supply wells; soil and water sampling; soil analysis utilizing spectrum analysis (XRF) methods; monitoring well drilling, installation, and development oversight; water sampling oversight; soil sampling oversight.

1994-1998 Layne Geosciences Inc. (LGI)

As a Project Geophysicist, responsibilities included providing geophysical support to LGI offices in exploration for high capacity water wells and environmental projects. Projects he has managed include mapping of chloride contaminated groundwater; mapping buried channels; mapping fractured bedrock; mapping abandoned landfills; mapping UST locations; and mapping liner leaks at a salt processing plant. Mr. Kinn also contributed to hydrogeological projects such as aquifer testing design and analysis and wellhead protection investigations.

1992-1994 Private Contracting

As a private geophysical contractor, Mr. Kinn was involved in projects including gravity investigations for geothermal exploration, Very Low Frequency (VLF) investigations for fracture/fault mapping and total station surveying.

1990-1992 Phoenix Geoscience, CSAMT Surveys, Inc.

As a Field Geophysicist, Mr. Kinn's responsibilities included acquisition of magnetotelluric (MT) and controlled source audio magnetotelluric (CSAMT) data, knowledge of equipment and optimum array design, and presentation of field results.

14. Brief resume of key persons, specialists and individual consultants/associates anticipated for this contract:

Name of Individual	Title
Kara Taylor	Staff Geologist
Personnel Classification/Level (*Reference ASRAC Statement of Work Table 1*)	Area of Expertise
Professional Level III	Site Assessment, Subsurface Investigations
Proposed Project Role (*e.g. Project Manager, Project Engineer, Project Hydrologist, ect.*)	Education
Staff Geologist	B.S., Geology & Geophysics, 1996

Years of Experience	Years of Related Experience	Registrations and Certifications Held and Year Received
8	8	

Employment History

	Firms Name	Start Date	End Date
1.	Terranext, LLC	Feb. 1999	Present
2.	BRAL Environmental	Feb. 1998	Jan. 1999
3.	Geotechnical Services, Inc.	March 1997	Jan. 1998
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Executive Summary of Career Highlights

Mrs. Taylor been involved with projects related to NEPA investigations, Preliminary Assessments (PAs), Phase I Phase II Environmental Site Assessments (ESAs), Environmental Baseline Studies (EBSs), Potentially Responsible Party (PRP) Searches, a Pollution Prevention Opportunity Assessment (P20A), Storm Water Pollution Prevention Plans (SWPPPs), Brownfield Targeted Assessments (BTAs), UST removals, subsurface investigations/ assessments, site characterizations, and limited geophysical surveys. Experience includes development of proposals and work plans, invoicing, technical report writing, and data interpretation. Field responsibilities have included standard soil boring/monitoring well installation techniques using hollow-stem auger, flight auger, and rotary drilling techniques, direct-push technology, soil and ground water sampling, field screenings, nuclear densometer compaction testing, and various field and laboratory testing of soil, aggregate, concrete, gunite, and shotcrete.

Professional Experience:

Mrs. Taylor provides technical support in conducting field activities related to site assessments and remediation projects, including logging geologic borings, collecting and analyzing site hydrogeological data and data from soil and ground water sampling, and preparation of technical reports. She also provides project management support in the development of technical work plans, proposals, scheduling of field activities, invoicing, report preparation, and report review.

Geologist conducting PRP Searches at two facilities located in southeast Kansas and performing BTAs at three facilities in eastern Kansas. Primary responsibilities for PRP Searches include obtaining a concise operational history of the sites, identifying PRPs, the nature of activities of various operators, hazardous substances released, and compiling all information gathered into final reports. Primary responsibilities for

BTAs include preliminary site reconnaissance followed by site investigation activities, including geoprobe investigations and soil and ground water sample collection.

Geologist conducting various investigations at Missouri Army National Guard facilities throughout Missouri. Primary responsibilities included obtaining all necessary historical information, contacting state, county and local officials regarding the condition of the property or properties in question, conducting interviews with persons knowledgeable of the site, performing site reconnaissance, and compiling all collected information into final reports.

Geologist conducting multiple Phase I ESAs at various state facilities throughout Missouri. Primary responsibilities included obtaining all necessary historical information, contacting state, county, and local officials regarding the condition of the property or properties in question, conducting interviews with persons knowledgeable of the site, performing a site reconnaissance, and compiling all collected information into final reports.

Geologist overseeing UST removals, soil boring and monitoring well installation, development, and sampling. Primary responsibilities included logging soil cuttings, performing field screenings, collecting soil samples, developing and sampling monitoring wells, submitting soil and water samples to an accredited laboratory for analysis, and completing project reports.

Geologist overseeing UST removals, soil boring and monitoring well installation, development, sampling, and emergency response on behalf of a major petroleum retailer. Primary responsibilities included negotiating with third parties, logging soil cuttings, performing field screenings, collecting soil samples, developing and sampling monitoring wells, submitting soil and water samples to an accredited laboratory for analysis, and completing project reports.

Environmental geologist conducting a NEPA Investigation in conjunction with a Phase I ESA on multiple residential site in Grandview, Missouri. Primary responsibilities included researching necessary historical, ecological, and biological information, including contacting state, county, and local officials, conducting interviews, performing a site reconnaissance, and compiling all information collected into a final report.

Environmental geologist conducting various Phase I ESAs throughout the Kansas City Metropolitan area. Primary responsibilities included obtaining all necessary historical information, contacting state, county, and local officials regarding the condition of the property or properties in question, conduction interviews with persons knowledgeable of the site, performing a site reconnaissance, and compiling all collected information into final reports.

Field geologist assisting Ecology and Environment, Inc. in well development, subsurface investigation, and well installation into three separate aquifer systems to determine the extent of trichloroethylene (TCE) present at the former military air field located in Herington, Kansas. Primary responsibilities included well development utilizing pumps and bailers, conducting ground water field screenings, collecting core cuttings, and logging soil and rock cores.

Field geologist assisting in monitoring well installation, development, and sampling at various sites throughout eastern Kansas. Primary responsibilities included logging soil cuttings, performing field screenings, collecting split spoon samples, developing and sampling monitoring wells, submitting soil and water samples to an accredited laboratory for analysis, and completing project reports.

14. Brief resume of key persons, specialists and individual consultants/associates anticipated for this contract:

Name of Individual	Title
Brian Kichan	Staff Scientist
Personnel Classification/Level (*Reference ASRAC Statement of Work Table 1*) Professional Level III	Area of Expertise Environmental Assessment, Emergency Response
Proposed Project Role (*e.g. Project Manager, Project Engineer, Project Hydrologist, ect.*) Staff Scientist	Education B.S., Biology, 1999

Years of Experience	Years of Related Experience	Registrations and Certifications Held and Year Received
5	5	

Employment History

	Firms Name	Start Date	End Date
1.	Terranext, LLC	July 2003	Present
2.	ATC Associates	July 2000	July 2003
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Executive Summary of Career Highlights

Mr. Kichan has completed over 70 Phase I Environmental Site Assessments, Phase II subsurface investigations, and indoor air quality surveys for mold, lead-based paint, and asbestos. Through his experience, Mr. Kichan has developed self-management and technical writing skills, and abilities to effectively interact with public and private clients and governmental agencies. He routinely meets deadlines, is able to perform multi-tasked projects.

Representative Projects

Environmental, Confidential Communications Company, Dallas, TX. Conducted environmental assessments for a communications company for installation of cell towers. Assessments involved the completion of a NEPA FCC Checklist, communication with U.S. Fish and Wildlife Services to make sure that threatened or endangered species or designated critical habitats would not be affected by the tower installation, Texas and Texas Parks and Wildlife Department regarding officially designated wilderness area and wildlife preserves, and issuance of a report based on the site walkthrough, review of historical aerial photographs, Sanborn Fire Insurance Maps, address/city directories, municipal records, federal and state regulatory databases, and local fire department information.

Environmental, Confidential Client, Dallas, TX. Conducted approximately 70 Phase I environmental site assessments (ESAs) according to ASTM standards. The Phase I ESAs included site visits and historical research using aerial photographs, city directories, fire insurance maps, government records, review of relevant regulatory files pertaining to the area, personnel interviews, reviews of hazardous materials and waste handling practices, identification of potential sources of contamination, sampling for asbestos-containing materials, lead-based paint, and mold investigations.

Environmental, Confidential Financial Institution, Dallas, TX. Conducted several site screenings for a national bank. Screenings involved the completion of a site inspection form and issuance of a prior use report based on the site walkthrough, review of historical aerial photographs, Sanborn Fire Insurance Maps, address indexes/ city directories, municipal records, federal and state regulatory databases, and local fire department information.

Superfund Technical Assessment and Response Team (START), Dougherty Sprague Environmental, Inc., Corsicana, TX. Participated in the Columbia Shuttle Recovery effort as a member of the EPA START team working out of the Corsicana, Texas Incident Command Post (ICP). Responsibilities included identification of hazardous field conditions, hazardous shuttle debris, and the classification and collection of Columbia shuttle debris.

Indoor Air Quality Surveys, Apartment Complex, Dallas, TX. Conducted on-site testing for a comprehensive indoor air quality survey and inspection of a 30-building, 264-unit apartment complex. Each unit was visually inspected for the presence of mold and air samples collected to document the airborne concentrations of culturable fungi. The project required coordination with four, two-person sample teams, property management, apartment occupants, the analytical laboratory and client representatives.

Indoor Air Quality, Confidential Client, Dallas, TX. Dallas Task Manager for a time critical National Homeland Security project involved with asbestos and lead-based paint sampling at regional and international airports located throughout the south-central portion of the United States. Duties include preparing cost estimate proposals, work change order authorizations, project set-up, report preparation and review, management of staff, and client interaction.

Environmental, Confidential Client, Dallas, TX. Supervised the installation and development of groundwater monitoring wells, as well as conducted groundwater and soil sampling events and provided quarterly monitoring reports. Managed field crews and reported daily progress to senior project manager. Supervised tank tightness tests and collected data for report preparations.

15. Provide an organizational chart showing the staffing and lines of authority for the key persons to be used under this contract.

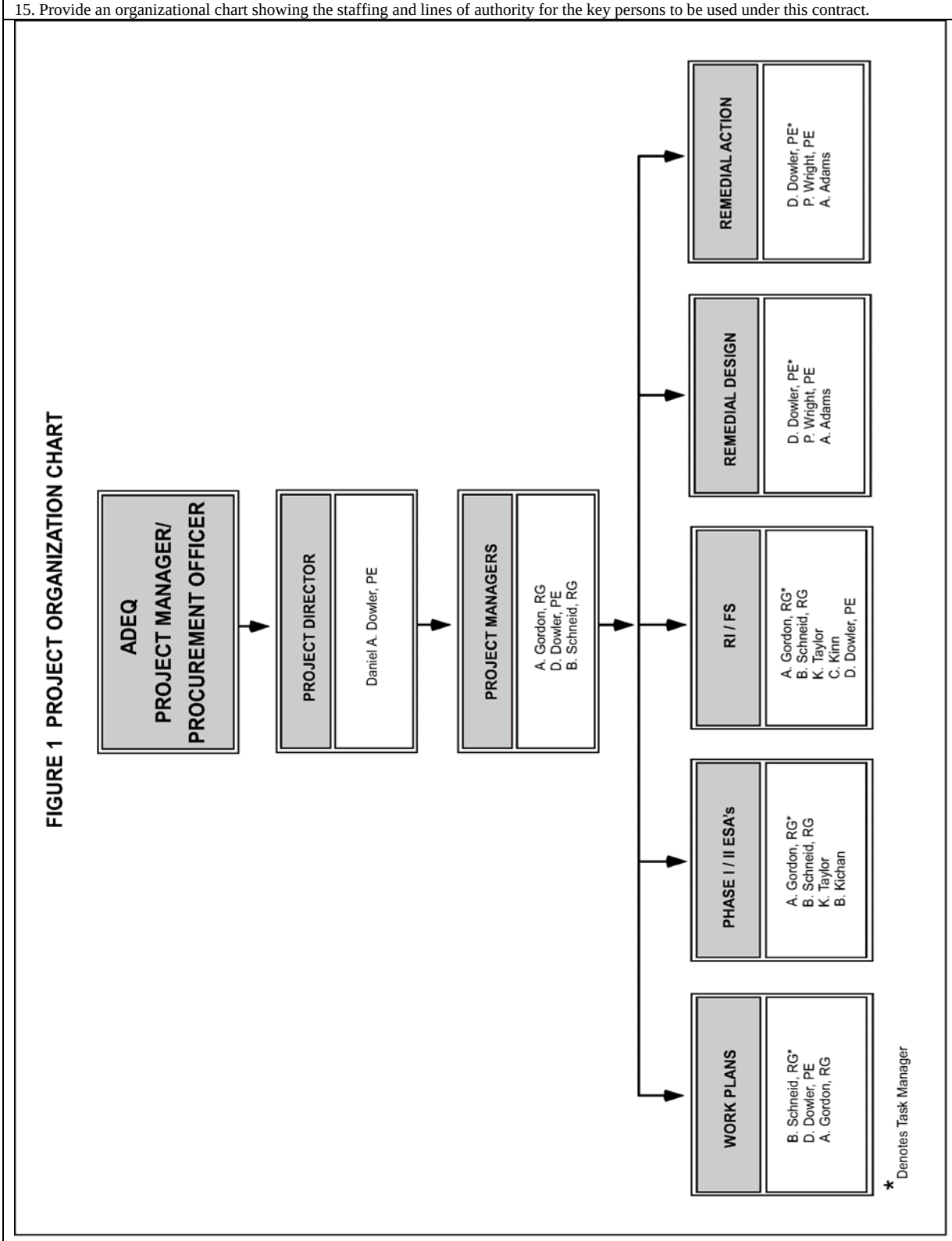

Figure 1

16. Complete the Pricing Schedule in its entirety.

Support Services	Minimum Responsibilities, Qualifications and Education	Base Hourly Rate
Support Level I	Responsibilities: Clerical, word processing, filing, general administration. Qualifications: Entry level, no experience restriction. Education: No education restriction.	**$ 35. 00**
Support Level II	Responsibilities: Drafting, project manager's assistant, graphics. Qualifications: 1 - 2 years experience. Education: No education restriction.	**$ 40. 00**
Support Level III	Responsibilities: Drafting supervisor, administrator supervisor, Senior Word Processor. Qualifications: 2 - 4 years experience. Education: No education restriction.	**$ 45. 00**
Field Services	**Minimum Responsibilities, Qualifications and Education**	**Base Hourly Rate**
Field Services Level I	Responsibilities: Closely supervised; conducts routine heavy labor during equipment installations; sampling/gauging, equipment maintenance. Qualifications: Entry level, 1 - 2 years of experience. Education: No education restriction.	**$ 35. 00**
Field Services Level II	Responsibilities: Limited supervision; occasional heavy labor; sampling/gauging, equipment installations, operations, troubleshooting. Qualifications: 2 - 4 years of experience. Education: No education restriction.	**$ 40. 00**
Field Services Level III	Responsibilities: Supervises on-site tasks such as system installations and operations, trouble shooting; technical advisor. Qualifications: 5 - 7 years of experience. Education: No education restriction.	**$ 45. 00**
Field Services Staff **(Cultural resource surveys or archaeological studies and data recovery only)**	Responsibilities: Limited supervision; experience in historic and prehistoric archaeological investigations, reconnaissance and intensive surveys. Qualifications: 1 - 2 years of experience /knowledge of the history and prehistory of Arizona Education: Bachelor's degree in archeology required.	**$ 50. 00**
Field Services Manager	Responsibilities: Overall supervision of field services staff; works with Project Managers on scheduling and coordination. Qualifications: 7 - 9 years experience. Education: No education restriction	**$ 57. 00**
Professional Personnel *	**Minimum Responsibilities, Qualifications and Education**	**Base Hourly Rate**
Professional Level I	Responsibilities: Close supervision, routine tasks associated with environmental projects. Qualifications: 1 - 2 years of experience. Education: Bachelor of Science (BS) degree.	**$ 57. 00**
Professional Level II	Responsibilities: Collects and interprets data, report writing, provides project input. Qualifications: 2 - 4 years of experience Education: Bachelor of Science (BS) degree.	**$ 67. 00**
Professional Level III	Responsibilities: Limited supervision, independent fieldwork, oversees Professional Levels I and II. Qualifications No. 1: 4 - 6 years of experience with Bachelor of Science (BS) degree. Qualifications No. 2: 1-2 years of experience with Masters degree.	**$ 77. 00**
Professional Level IV	Responsibilities: Manages projects of moderate scope, prepares cost estimates, supervises others. Qualifications No. 1: 6 - 8 years experience with Bachelor of Science (BS) degree or registration (PE or RG). Qualifications No. 2: 3 - 4 years of experience with Masters degree.	**$ 87. 00**
Professional Level V	Responsibilities: Senior technical leader for environmental projects, QA of Project Plans, report review. Qualifications: 8 or more years of experience. Education: Advanced degree in field or registration (PE or RG). ***** Must meet both the experience & education requirements *****	**$ 97. 00**
Professional Level VI	Responsibilities: Recognized registered professional, resident expert, expert testimony, QA of Project Plans and report review and/or Oversees and coordinates all levels of personnel, senior technical leader and has signature authority. Qualifications No. 1: 5 or more years in field project formulation, survey, excavation and technical reporting experience. Education No. 1: Doctorate degree and registration (PE or RG). Qualifications No. 2: 12 or more years of experience. Education No. 2: Advanced degree in field and registration (PE or RG). Qualifications No. 3: 20 or more years in field project formulation, survey, excavation and technical reporting experience and current Office Manager. Education No. 3: Bachelor of Science (BS) degree in applicable field of study. ***** Must meet both the experience & education requirements *****	**$ 100. 00**

* There will be multiple technical disciplines that will fall under the descriptions of each professional level. A geologist, engineer, public involvement specialist, or environmental scientist with one year environmental experience would each fall under a Professional Level I.

Aggregate Hourly Rate Total: **$ 832. 00**

17. Complete the Rental Equipment Pricing Schedule in its entirety.

Equipment Name	Price Per Day	Price Per Week	Price Per month
Vehicle	$ 75. 00	$ 300. 00	$ 1,000. 00
Generator	$ 65. 00	$ 260. 00	$ 950. 00
Interface Probe	$ 60. 00	$ 240. 00	$ 900. 00
Organic Vapor Meter	$ 75. 00	$ 300. 00	$ 1,000. 00
pH / EC / Temp Meter	$ 35. 00	$ 120. 00	$ 450. 00
PID	$ 90. 00	$ 360. 00	$ 1,400. 00
FID	$ 115. 00	$ 575. 00	$ 2,000. 00
Hnu	$ 75. 00	$ 300. 00	$ 1,000. 00
Draeger Pump	$ 25. 00	$ 80. 00	$ 300. 00
CGI (Combustible Gas Indicator)	$ 90. 00	$ 360. 00	$ 1,400. 00
Bladder Pump	$ 110. 00	$ 440. 00	$ 1,600. 00
Cetrifugal Pump	$ 35. 00	$ 140. 00	$ 500. 00
Peristaltic Pump	$ 35. 00	$ 140. 00	$ 500. 00
Water Level Indicator	$ 35. 00	$ 120. 00	$ 450. 00
Metal Detector	$ 30. 00	$ 100. 00	$ 350. 00
Steam Cleaner	$ 100. 00	$ 400. 00	$ 1,000. 00
Air Compressor	$ 80. 00	$ 320. 00	$ 900. 00
Dissolved Oxygen Meter	$ 35. 00	$ 140. 00	$ 600. 00
Submersible Pump	$ 120. 00	$ 480. 00	$ 1,800. 00
Turbidity Meter	$ 35. 00	$ 140. 00	$ 500. 00
Mini Ram	$ 95. 00	$ 380. 00	$ 1,400. 00
Bailer (reusable)	$ 20. 00	$ 75. 00	$ 225. 00
Hand Auger	$ 50. 00	$ 200. 00	$ 750. 00
Impact Sampler	$ 50. 00	$ 200. 00	$ 750. 00
GPS Equipment	$ 50. 00	$ 200. 00	$ 700. 00
Flow Meter	$ 20. 00	$ 80. 00	$ 240. 00
Discrete Inverval Sampler	$ 20. 00	$ 80. 00	$ 240. 00
Flow Through Cell	$ 30. 00	$ 100. 00	$ 350. 00
Pressure Transducer, Cable and Data Logger	$ 140. 00	$ 550. 00	$ 1,600. 00

18. Use this space to provide any additional information or description of resources (including any computer design capabilities) supporting your firm's qualifications for the proposed contract.

Terranext is highly qualified to be an ADEQ contractor for the Pollutants contract. We have been an active ADOA pollutants contractor since the inception of this contract. Five major general activities have been identified in the solicitation: work plan preparation, Phase I and II environmental site assessments, remedial investigations/feasibility studies (RI/FS), remedial design, and remedial action. The Phoenix office of Terranext is highly experienced in these areas, having performed these services for both ADEQ and other state agencies.

Our previous and ongoing WQARF experience covers most of these general activities. Messrs. Gordon and Dowler, two of our proposed project managers, have provided WQARF project planning and support. We have prepared WQARF workplans, including QAPPs, HASPs, FSPs, an RI workplan for the East Washington Fluff site, and an ERA workplan for the East Washington Fluff site. Additionally, a conceptual site model was previously performed for the Alameda-Priest area in Tempe.

RI activities have also been performed for both sites. Field activities have included site reconnaissance, mobilization/ demobilization of heavy equipment, hydrogeologic assessment through water level monitoring and preparation of water level contour maps, soil boring, drilling, and well construction, environmental sampling of ground and surface water, soil, and hazardous waste, ecological characterization of the East Washington Fluff site, surveying of geoprobe and monitor well locations/elevations, geotechnical evaluation of the compacted soil cap constructed at the East Washington Fluff site, inventorying wells in the WVBA, surface geophysical survey at the East Washington Fluff site, borehole geophysical surveys in the WVBA, soil and water IDW management, and data evaluation. Terranext also performed a risk assessment of the East Washington Fluff site, data and document management including electronic data submittals for the WVBA, and for the East Washington Fluff site, preparation of draft RI and land use reports.

Terranext has also been involved in remedial design/remedial action activities at both sites. For the East Washington Fluff site, Terranext designed and implemented the ERA, and submitted an ERA completion report. It should be noted that this high-profile project required fast-tracking, and Terranext was able to perform this project on an expedited basis. For the ALSCo site, Terranext assisted ADEQ with design review, and oversight of construction, start-up, operation, maintenance, and monitoring.

Terranext has performed Phase I and II environmental site assessments for the Arizona Department of Transportation (ADOT), as well as private clients throughout Arizona. ADOT projects have included The Grand Avenue/59th Avenue intersection in Glendale, where Grand Avenue is being excavated as part of the improvements underway for this intersection. Additionally, Terranext recently removed an abandoned oil/water separator at an ADOT facility in Tucson, and subsequently performed a Phase II assessment at this site.

Lastly, please be advised that, as suggested by Mr. Greg Dwight of the Enterprise Systems Unit, "zero" has been entered for contract payment terms and contract delivery for functionality, and Terranext will not be held to this response.